



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,387	11/16/2000	Kenon R. Copeland	A33436(065855.0121)	9510
21003	7590	02/08/2005	EXAMINER	
BAKER & BOTTS 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			BOYCE, ANDRE D	
			ART UNIT	PAPER NUMBER
			3623	

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/714,387

Applicant(s)

COPELAND, KENNON R.

Examiner

Andre Boyce

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Final office action is in response to Applicant's amendment filed November 12, 2004. Claim 10 has been amended. Claims 1-19 are pending.
2. The previously pending rejection to claim 10 under 35 USC § 112, second paragraph, has been withdrawn.
3. Applicant's arguments filed November 12, 2004 have been fully considered but they are not persuasive.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 101

5. Claims 1-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature,

natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter.

For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts. In the present case the independent claims 1, 7, and 12 only recite abstract ideas. The recited steps of collecting data, estimating total sales volume, calculating a day of the week specific projection factor, sampling sales data, etc. does not involve, use, or advance the technological arts (i.e., computer, processor, electronically, etc.), since the steps could be performed using pencil and paper.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case the claimed invention applies a projection factor to determine an estimate of total sales, thereby producing a useful, concrete, and tangible result, but not within the technological arts as explained above.

Claim Rejections - 35 USC § 102

6. Claims 1-4, 6-10, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Ando (USPN 6,032,125).

As per claim 1, Ando discloses a method for estimating sales volume of an item (forecast model 6, figure 1) comprising: collecting sampled sales data for a reference

Art Unit: 3623

period (13 month sales results, column 4, lines 34-36); estimating total sales volume for the reference period (monthly forecast file F5, column 4, lines 59-61); parsing the reference period into a plurality of sub-periods (forecast result file F2, forecasting value of each week, column 4, lines 39-42), collecting sampled sales data for a current sub-period of interest (i.e., current week), the current sub-period of interest being later in time than the reference period (final forecasting result based on data of the current week, column 5, lines 35-38); matching the current sub-period to a corresponding sub-period from said plurality of sub-periods (last 18 weeks); calculating a sub-period specific projection factor for the corresponding sub-period (pattern outputting the forecasting value S13, column 5, lines 45-47); and applying said projection factor to said sales data from the current sub-period of interest to determine an estimate of total sales for the current sub-period (closest pattern is extracted and used to obtain the final forecasting result, column 5, lines 39-47).

As per claim 2, Ando discloses the sub-periods are days of the week (frequency of forecasting may be daily, column 4, lines 26-29).

As per claim 3, Ando discloses the reference period is one-week (forecast result file F2).

As per claim 4, Ando discloses the current sub-period is a certain day of the week, the sub-periods of the reference period are days of the week and wherein the corresponding sub-period is the day of the week matching the certain day (daily forecasting result reflected in weekly forecasting, wherein the pattern from each day

Art Unit: 3623

is compared to the same day of the previous week, as seen in Figure 2, which uses weeks instead of days, column 7, lines 41-45).

As per claim 6, Ando discloses the sample size for the reference period is larger than the sample size for the current sub-period of interest (sample size of the first 14 weeks versus the entire 18 week period, column 5, lines 56-59).

As per claim 7, Ando discloses a method of estimating daily sales volume (frequency of forecasting may be daily, column 4, lines 26-29) comprising: calculating a day of the week specific projection factor based on reference sales history data (final forecasting result pattern S13, figure 3); sampling sales data for a current day of interest (i.e., current day, wherein final forecasting result based on data of the current day, column 5, lines 35-38); scaling at least a portion of the sampled sales data for the current day of interest by the day of the week specific projection factor to determine an estimate of daily sales volume for the current day of interest (i.e., the pattern outputting the forecasting value closest to the actual sales results is extracted and obtained as the pattern of comparison, column 5, lines 34-38).

As per claim 8, Ando discloses the reference sales history data includes sampled sales data for a reference week prior to the day of interest (daily forecasting would include data from last 18 weeks/day).

As per claim 9, Ando discloses the step of calculating the day of the week specific projection factor includes generating daily estimated sales volume for at

Art Unit: 3623

least one day in the reference week (multiple patterns are calculated based upon the day of the week, see figures 2A-C as reference).

As per claim 10, Ando discloses the at least a portion of sampled sales data for the day of interest is the sampled data from those sources which have also provided data for the reference week (data from point-of-sales system at retail shop, column 4, lines 34-38).

Claim 17 is rejected based upon the rejections of claim 1, since it is the system claim corresponding to the method claim.

Claim Rejections - 35 USC § 103

7. Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (USPN 6,032,125), in view of Felthausen et al (USPN 5,420,786).

As per claim 5, Ando does not disclose the item being a pharmaceutical product. Felthausen et al discloses product sales at pharmacies estimated (column 5, lines 59-61). Both Ando and Felthausen are concerned with effective product sales estimation, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a pharmaceutical product in the Ando system, as seen in Felthausen, thus making the Ando system more flexible and robust.

As per claim 11, Ando does not disclose the sources are retail pharmacies. Felthausen et al discloses product sales at pharmacies estimated (column 5, lines 59-61). Both Ando and Felthausen are concerned with effective product sales

Art Unit: 3623

estimation, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a pharmaceutical product in the Ando system, as seen in Felthauser, thus making the Ando system more flexible and robust.

8. Claims 12-14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (USPN 6,032,125), in view of Takahashi (USPN 6,021,394).

As per claim 12, Ando discloses a method for estimating daily sales volume of an item (frequency of forecasting may be daily, column 4, lines 26-29) comprising: collecting sampled sales data from a first plurality of sources for a current day of interest (product master F1, collecting results from a retail shop, column 4, lines 34-38); collecting sampled sales data for a reference week, said reference week being offset in time from said current day by a predetermined time period (reading forecast files F2 for the past 18 weeks sequentially, column 5, lines 41-43); estimating total sales volume for the reference week (demand forecasting for every week); parsing the sampled sales data and estimated total sales volume for the reference week by day of the week (daily forecasting result reflected in weekly forecasting, wherein the pattern from each day is compared to the same day of the previous week, as seen in Figure 2, which uses weeks instead of days, column 7, lines 41-45); selecting the parsed sales data and estimated total sales volume data for the day of the week in the reference week that matches the day of the week of the current day of interest (i.e., current day, wherein final forecasting result based on data of the current day,

Art Unit: 3623

column 5, lines 35-38); calculating a day of the week specific projection factor for the current day of interest (most frequently appeared pattern in the past 18 weeks/days is used for forecasting the future 18 weeks/days, column 5, lines 48-55); and applying said projection factor to said sales data for the current day of interest to determine an estimate of total sales for the day of interest (closest pattern is extracted and used to obtain the final forecasting result, column 5, lines 39-47).

Ando does not disclose collecting sampled sales data for a reference week from a second plurality of sources. Takahashi discloses the center computer 11 estimating sales for a plurality of vending machines 1, wherein sales results from vending machines 1A and 1B, over various time periods, are used to determine estimates sales for a particular product (column 5, lines 21-26). Both Ando and Takahashi are concerned with product forecasting, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include collecting sampled sales data for a reference week from a second plurality of sources in the Ando system, as seen in Takahashi, making the Ando system more robust, by collecting data from multiple retail shops that sell the same products.

As per claim 13, Ando discloses the quantity of sampled sales data for the current day of interest is smaller than the quantity of sampled sales data for the corresponding day of the week in the reference week (sample size of the first 14 weeks versus the entire 18 week period, column 5, lines 56-59).

As per claim 14, Ando does not disclose comparing said first plurality of sources to said second plurality of sources to determine the intersection of said sources and

wherein the step of determining the day of the week specific projection factor applies sample data from said intersection of sources. Takahashi discloses comparing sales results of a plurality of vending machines in order to determine product sales estimates (column 5, lines 2-7). Both Ando and Takahashi are concerned with product forecasting, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to determine the intersection of said sources in the Ando system, as seen in Takahashi, making the Ando system more robust, by collecting and mining data from multiple retail shops that sell the same products, thereby determining more accurate forecasts.

Claim 18 is rejected based upon the rejection of claim 14, since it is the system claim corresponding to the method claim.

9. Claims 15, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (USPN 6,032,125), in view of Takahashi (USPN 6,021,394), in further view of Felthausen et al (USPN 5,420,786).

As per claim 15, neither Ando nor Takahashi disclose the sources are retail pharmacies. Felthausen et al discloses product sales at pharmacies estimated (column 5, lines 59-61). Both Ando and Felthausen are concerned with effective product sales estimation, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a pharmaceutical product in the Ando system, as seen in Felthausen, thus making the Ando system more flexible and robust.

As per claim 16, neither Ando nor Takahashi disclose the item being a pharmaceutical product. Felthouser et al discloses product sales at pharmacies estimated (column 5, lines 59-61). Both Ando and Felthouser are concerned with effective product sales estimation, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a pharmaceutical product in the Ando system, as seen in Felthouser, thus making the Ando system more flexible and robust.

Claim 19 is rejected based upon the rejection of claims 15 and 16, since it is the system claim corresponding to the method claims.

Response to Arguments

10. In the Remarks, with respect to Applicant's arguments with respect to the rejections under 35 USC § 101, the Examiner respectfully submits that the phrase "technological arts" is synonymous with the phrase "useful arts" as it appears in Article I, Section 8 of the Constitution. *In re Waldbaum*, 173 USPQ 430 (CCPA 1972). And for a claim to be statutory it must be in the technological arts. *In re Musgrave*, 167 USPQ 280 (CCPA 1970) and *In re Johnston*, 183 USPQ 172 (CCPA 1974). The technological arts inquiry must focus on whether the claim subject matter is statutory. *In re Toma*, 197 USPQ 852 (CCPA 1978). *Toma* held "that the method of enabling a computer to translate natural languages is in the technological arts, i.e., it is a method of operating a machine." Further, the invention in the body of the claim must recite technology. If the invention in the body of the claim is not tied

to technological art, environment, or machine, the claim is not statutory. *Ex parte Bowman*, 61 USPQ2d 1665, 1671 (BD. Pat. App. & Inter. 2001) (Unpublished). Also note MPEP 2106 IV 2(b). Further, in response to Applicant's discussion of *State Street* case, the Examiner submits that technological arts, under 35 USC § 101, was not discussed in the case because technology was included in the claims.

With respect to claim 1, Applicant argues that Ando does not disclose calculating a specific projection factor and applying the projection factor to sales data from the current sub-period of interest. The Examiner respectfully disagrees with Applicant's assertion. As seen in Applicant's specification, the sales data are provided at least weekly with a delay of several days or more in the data being reported (specification page 10, lines 1-2). Further, in addition to weekly reporting, a smaller number of retailers provide sales data on a daily basis at the close of each business day (specification, page 10, lines 18-20). In either event, the sales data is necessarily *historical* (i.e., sales data collected from the past). "Current" simply refers to which reference period is being examined to determine the estimate of total sales, as seen in Ando.

With respect to claim 7, Applicant argues that Ando does not disclose scaling at least a portion of the sampled sales data for the current day of interest by the day of week specific projection factor to determine an estimate of daily sales volume for the current day of interest. The Examiner respectfully disagrees. As discussed above, the sales data in Applicant's invention is necessarily historical (i.e., sales data collected from the past), and "current" simply refers to which reference period is

being examined to determine the estimate of total sales, as seen in Ando. Further, Ando indeed discloses scaling at least a portion of the sales data by the day of the week projection factor (i.e., the pattern outputting the forecasting value closest to the actual sales results is extracted and obtained as the pattern of comparison, column 5, lines 34-38).

Applicant also seems to suggest that the Examiner is using impermissible hindsight. In response to Applicant's argument, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

With respect to claim 12, Applicant argues that Ando does not teach or suggest calculating a day of the week specific projection factor for the current day of interest, and applying the projection factor to the sales data for the current day of interest. The Examiner respectfully disagrees, as discussed above, with respect to claim 1

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (703) 305-1867. The examiner can normally be reached on 9:30-6pm M-F.

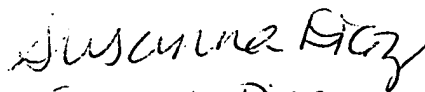
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


adb

February 3, 2005


Susanne Diaz
Primary Examiner
Au 3623